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EXAMINER VO, NGUYEN THANH				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/807,767

**Applicant(s)**

WALKER ET AL.

**Examiner**

NGUYEN VO

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 75-78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-74 and 79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 75-78 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 7, 12, 24, 26-27, 34, 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda (5,081,402) in view of Nagamoto (5,446,453).

As to claim 1, Koleda discloses a wireless control system for operating a component at least in part in response to a wireless signal 14 from a remote control device 16 manipulable by a user (see the shade or window remote control system in figure 1). Koleda fails to disclose the wireless signal being a RF signal, the RF signal

including at least one preamble pulse followed by a data command signal; the system comprising at least one RF receiver associated with the component and configured for processing RF signal, and at least one controller associated with the component and controlling the receiver, the controller causing the receiver to be energized once sometime within a period of a preamble pulse, wherein the preamble pulse is not a data command signal, and when the controller causes the receiver to be energized, an activation duration of the receiver is substantially shorter than the period of a preamble pulse. Nagamoto discloses a wireless remote control system using RF control signal (see column 6 lines 15-19); wherein the RF signal including at least one preamble pulse (see the preamble signal pulse in figure 4; see also column 7 lines 4-21) followed by a data command signal (see the data command signal in figure 4; see also the data command signal 8b, 9b at column 7 lines 4-39); the system comprising at least one RF receiver 951 (see figure 3B) associated with the component and configured for processing RF signal, and at least one controller 954 (see figure 3B) associated with the component and controlling the receiver 951, the controller causing the receiver to be energized once sometime within a period of a preamble pulse (see column 9 lines 13-22), wherein the preamble pulse is not a data command signal (see figure 4; column 7 lines 4-39), and when the controller causes the receiver to be energized, an activation duration of the receiver is substantially shorter than the period of a preamble pulse (see column 9 lines 13-22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Nagamoto to

Koleda, in order to lower the consumption of batteries used as a power source (as suggested by Nagamoto at column 3 lines 5-20).

As to claims 2-3, 26-27, Koleda as modified by Nagamoto fails to disclose that each preamble pulse has a duty cycle in excess of 50% as in claims 2, 26, and that the RF signal includes at least six pulses as in claims 3, 27. Those skilled in the art, however, would have recognized that the above claimed limitations would not render the claims patentable over the modified Koleda because they would merely depend on the structure of the preamble alone. Other conventional preamble structures could also be in used the modified Koleda without changing the scope and spirit of the modified Koleda's invention. In addition, the examiner takes Official Notice that a preamble pulse which has a duty cycle in excess of 50%, and RF signal which includes at least six pulses are known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the preamble pulse in Nagamoto as claimed, in order to allow the receiver enough time to detect the preamble pulses.

As to claim 7, Koleda further discloses at least one bypass capacitor 32 (see figure 1; column 4 lines 1-24). Koleda, however, fails to disclose that the capacitor 32 has a capacitance of below 500pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

As to claims 12, 34, see the motor 20 in figure 1 in Koleda. See also column 2 lines 56-61.

As to claim 24, it is rejected for similar reasons as set forth in claim 7. In addition, the recitation "a window covering, awning, security screen, projection screen, lighting system or the like" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In fact, Koleda does disclose remote control system for controlling a window covering (see column 2 lines 56-61).

As to claim 79, first of all Koleda as modified by Nagamoto does disclose energizing the receiver once sometime within a period of a preamble pulse as claimed (see Nagamoto, column 9 lines 13-22). The modified Koleda fails to disclose that the activation duration is approximately 80  $\mu$ s when the period of the preamble pulse is approximately 5000  $\mu$ s, as recited in the claim. Those skilled in the art, however, would have recognized that the above difference would not render the claim patentable over Koleda because it would merely depend on how much power one would like to save in his system. It is no doubt that when the activation duration is much smaller than the period of the preamble pulse, power consumption is greatly reduced. However, the probability of not detecting a preamble pulse is high. On the contrary, when the

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activation duration is not much smaller than the period of the preamble pulse, power consumption is not greatly reduced. However, the probability of not detecting a preamble pulse is very low. For that reason, if one's priority is power consumption, then he would design his system such that the activation duration (80  $\mu$ s) is much smaller than the period of the preamble pulse (5000  $\mu$ s); and if one's priority is not missing any preamble pulse, then he would design his system such that the activation duration is not smaller than the period of the preamble pulse. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Koleda as claimed, in order to further reduce the power consumption.

4. Claims 4, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Langlais (US 2003/0215032 A1).

As to claims 4, 28, Koleda as modified by Nagamoto fails to disclose a fast filter and a slow filter as claimed. Langlais discloses disclose a fast filter 406 and a slow filter 408 (see figure 4) each electrically interposed between a receiver (232, 245. See figure 3)) and a controller (360, 368). See also paragraphs [0037]-[0038]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Langlais to Koleda, in order to properly detect presence of a signal (as suggested by Langlais at paragraphs [0037]-[0038]).

5. Claims 5-6, 13-16, 18, 23, 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu (US 6,735,454 B1).

As to claims 5, 29, Koleda as modified by Nagamoto fails to disclose operating at a low frequency clock during at least most of the long period and at a high clock

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frequency at least when the receiver is energized as claimed. Yu discloses operating at a low frequency clock during at least most of the long period and at a high clock frequency at least when the receiver is energized (see column 5 line 29 to column 6 line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yu to Koleda, in order to further reduce the power consumption of the battery (as suggested by Yu at column 5 lines 45-51).

As to claims 6, 14, 30, the combination of Koleda and Nagamoto and Yu further discloses the claimed limitation (see Yu, column 5 line 64 to column 6 line 18).

As to claim 13, it is rejected for similar reasons as set forth in claim 5. In addition, the recitation "a window covering, awning, security screen, projection screen, lighting system or the like" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hiraio*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In fact, Koleda does disclose remote control system for controlling a window covering (see column 2 lines 56-61).

As to claims 15-16, Koleda as modified by Nagamoto and Yu fails to disclose that the plural pulses has a duty cycle in excess of 50% as in claim 15, and include at least six pulses as in claim 16. Those skilled in the art, however, would have recognized that the above claimed limitations would not render the claims patentable over Koleda



because they would merely depend on the structure of the preamble alone. Other conventional preamble structures could also be in used Koleda without changing the scope and spirit of Koleda's invention. In addition, the examiner takes Official Notice that a preamble signal which has a duty cycle in excess of 50%, and include at least six pulses is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the preamble pulse in Nagamoto as claimed, in order to allow the receiver enough time to detect the preamble pulses.

As to claim 18, Koleda further discloses at least one bypass capacitor 32 (see figure 1; column 4 lines 1-24). Koleda, however, fails to disclose that the capacitor 32 has a capacitance of below 500pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

As to claim 23, see the motor 20 in figure 1 in Koleda. See also column 2 lines 56-61.

6. Claims 8, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Pace (5,471,665).

As to claims 8, 25, Koleda as modified by Nagamoto does disclose one bypass capacitor 32 (see figure 1), but fails to disclose plural bypass capacitors as claimed. Pace discloses a plural bypass capacitors (see column 4 lines 30-40). Therefore, it

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would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pace to Koleda, in order to obtain a much faster warm up time (as suggested by Pace at column 4 lines 34-38).

Still as to claims 8, 25, the combination of Koleda and Nagamoto and Pace fails to disclose at least one capacitance not more than 100pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

7. Claims 9, 31, 35, 37-38, 42, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault (6,058,292, cited by examiner).

As to claims 9, 31, Koleda as modified by Nagamoto fails to disclose at least one SAW as claimed. Terreault discloses a SAW resonator circuit 60 for establishing an IF oscillator 24 for a receiver (see column 4 lines 5-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Terreault to Koleda, in order to increase the start up time.

As to claim 35, it is rejected for similar reasons as set forth in claim 9 above. In addition, the recitation "a window covering, awning, security screen, projection screen, lighting system or the like" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight

where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hira*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In fact, Koleda does disclose remote control system for controlling a window covering (see column 2 lines 56-61).

As to claims 37-38, Koleda as modified by Nagamoto fails to disclose that the plural pulses has a duty cycle in excess of 50% as in claim 37, and include at least six pulses as in claim 38. Those skilled in the art, however, would have recognized that the above claimed limitations would not render the claims patentable over Koleda because they would merely depend on the structure of the preamble alone. Other conventional preamble structures could also be in used Koleda without changing the scope and spirit of Koleda's invention. In addition, the examiner takes Official Notice that a preamble signal which has a duty cycle in excess of 50%, and include at least six pulses is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the preamble pulse in Nagamoto as claimed, in order to allow the receiver enough time to detect the preamble pulses.

As to claim 42, Koleda further discloses at least one bypass capacitor 32 (see figure 1; column 4 lines 1-24). Koleda, however, fails to disclose that the capacitor 32 has a capacitance of below 500pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see

Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

As to claim 45, see the motor 20 in figure 1 in Koleda. See also column 2 lines 56-61.

8. Claims 10, 32, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault (6,058,292) and Panther (5,537,676).

As to claims 10, 32, 36, the combination of Koleda and Nagamoto and Terreault fails to disclose an LC filter for filtering an IF signal as claimed. Panther discloses an LC filter 41 for filtering an IF signal (see column 3 lines 39-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Panther to the combination of Koleda and Nagamoto and Terreault, in order to reduce the implementing cost of the receiver 18 (as suggested by Panther at column 3 lines 40-45).

9. Claims 11, 33, 46-48, 52, 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka (5,636,243).

As to claims 11, 33, Koleda as modified by Nagamoto fails to disclose a DC-DC down converter as claimed. Tanaka discloses a DC-DC converter 318 electrically interposed between a battery 317 and receiver (see the receiver in figure 6) to provide voltage to the receiver (see column 4 lines 32-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above

teaching of Tanaka to Koleda, so that the receiver could be supplied with a desired voltage level (as suggested by Tanaka at column 4 lines 32-37).

As to claim 46, it is rejected for similar reasons as set forth in claim 11 above. In addition, the recitation "a window covering, awning, security screen, projection screen, lighting system or the like" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In fact, Koleda does disclose remote control system for controlling a window covering (see column 2 lines 56-61).

As to claims 47-48, Koleda as modified by Nagamoto fails to disclose that the plural pulses has a duty cycle in excess of 50% as in claim 47, and include at least six pulses as in claim 48. Those skilled in the art, however, would have recognized that the above claimed limitations would not render the claims patentable over Koleda because they would merely depend on the structure of the preamble alone. Other conventional preamble structures could also be in used Koleda without changing the scope and spirit of Koleda's invention. In addition, the examiner takes Official Notice that a preamble signal which has a duty cycle in excess of 50%, and include at least six pulses is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the preamble pulse in Nagamoto as claimed, in order to allow the receiver enough time to detect the preamble pulses.

As to claim 52, Koleda further discloses at least one bypass capacitor 32 (see figure 1; column 4 lines 1-24). Koleda, however, fails to disclose that the capacitor 32 has a capacitance of below 500pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

As to claim 56, it is rejected for similar reasons as set forth in claim 11 above.

As to claim 57, see the motor 20 in figure 1 in Koleda. See also column 2 lines 56-61.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and further in view of Langlais (US 2003/0215032 A1).

As to claim 17, Koleda as modified by Nagamoto and Yu fails to disclose a fast filer and a slow filter as claimed. Langlais discloses disclose a fast filer 406 and a slow filter 408 (see figure 4) each electrically interposed between a receiver (232, 245. See figure 3)) and a controller (360, 368). See also paragraphs [0037]-[0038]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Langlais to Koleda, in order to properly detect presence of a signal (as suggested by Langlais at paragraphs [0037]-[0038]).

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and further in view of Pace (5,471,665).

As to claim 19, Koleda as modified by Nagamoto and Yu does disclose one bypass capacitor 32 (see figure 1), but fails to disclose plural bypass capacitors as claimed. Pace discloses a plural bypass capacitors (see column 4 lines 30-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pace to Koleda, in order to obtain a much faster warm up time (as suggested by Pace at column 4 lines 34-38).

Still as to claim 19, the combination of Koleda and Pace fails to disclose at least one capacitance not more than 100pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and further in view of Terreault (6,058,292).

As to claim 20, Koleda as modified by Nagamoto and Yu fails to disclose at least one SAW as claimed. Terreault discloses a SAW resonator circuit 60 for establishing an IF oscillator 24 for a receiver (see column 4 lines 5-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Terreault to Koleda, in order to increase the start up time.

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13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and Terreault (6,058,292) and further in view of Panther (5,537,676).

As to claim 21, the combination of Koleda and Nagamoto and Yu and Terreault fails to disclose an LC filter for filtering an IF signal as claimed. Panther discloses an LC filter 41 for filtering an IF signal (see column 3 lines 39-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Panther to the combination of Koleda and Terreault, in order to reduce the implementing cost of the receiver 18 (as suggested by Panther at column 3 lines 40-45).

14. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and further in view of Tanaka (5,636,243).

As to claim 22, Koleda as modified by Nagamoto and Yu fails to disclose a DC-DC down converter as claimed. Tanaka discloses a DC-DC converter 318 electrically interposed between a battery 317 and receiver (see the receiver in figure 6) to provide voltage to the receiver (see column 4 lines 32-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Tanaka to Koleda, so that the receiver could be supplied with a desired voltage level (as suggested by Tanaka at column 4 lines 32-37).

15. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault and further in view of Langlais (US 2003/0215032 A1).



As to claim 39, Koleda as modified by Nagamoto and Terreault fails to disclose a fast filter and a slow filter as claimed. Langlais discloses disclose a fast filter 406 and a slow filter 408 (see figure 4) each electrically interposed between a receiver (232, 245. See figure 3)) and a controller (360, 368). See also paragraphs [0037]-[0038]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Langlais to Koleda, in order to properly detect presence of a signal (as suggested by Langlais at paragraphs [0037]-[0038]).

16. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault and further in view of Yu (US 6,735,454 B1).

As to claim 40, Koleda as modified by Nagamoto and Terreault fails to disclose operating at a low frequency clock during at least most of the long period and at a high clock frequency at least when the receiver is energized as claimed. Yu discloses operating at a low frequency clock during at least most of the long period and at a high clock frequency at least when the receiver is energized (see column 5 line 29 to column 6 line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yu to Koleda, in order to further reduce the power consumption of the battery (as suggested by Yu at column 5 lines 45-51).

As to claim 41, the combination of Koleda and Yu further discloses the claimed limitation (see Yu, column 5 line 64 to column 6 line 18).

17. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault and further in view of Pace (5,471,665).

As to claim 43, Koleda as modified by Nagamoto and Terreault does disclose one bypass capacitor 32 (see figure 1), but fails to disclose plural bypass capacitors as claimed. Pace discloses a plural bypass capacitors (see column 4 lines 30-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pace to Koleda, in order to obtain a much faster warm up time (as suggested by Pace at column 4 lines 34-38).

Still as to claim 43, the combination of Koleda, Nagamoto and Terreault and Pace fails to disclose at least one capacitance not more than 100pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

18. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault and further in view of Tanaka (5,636,243).

As to claim 44, Koleda as modified by Nagamoto and Terreault fails to disclose a DC-DC down converter as claimed. Tanaka discloses a DC-DC converter 318 electrically interposed between a battery 317 and receiver (see the receiver in figure 6) to provide voltage to the receiver (see column 4 lines 32-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Tanaka to Koleda, so that the receiver could be supplied with a desired voltage level (as suggested by Tanaka at column 4 lines 32-37).

19. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and further in view of Langlais (US 2003/0215032 A1, cited by examiner).

As to claim 49, Koleda as modified by Nagamoto and Tanaka fails to disclose a fast filter and a slow filter as claimed. Langlais discloses a fast filter 406 and a slow filter 408 (see figure 4) each electrically interposed between a receiver (232, 245. See figure 3)) and a controller (360, 368). See also paragraphs [0037]-[0038]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Langlais to Koleda, in order to properly detect presence of a signal (as suggested by Langlais at paragraphs [0037]-[0038]).

20. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and further in view of Yu (US 6,735,454 B1).

As to claim 50, Koleda as modified by Nagamoto and Tanaka fails to disclose operating at a low frequency clock during at least most of the long period and at a high clock frequency at least when the receiver is energized as claimed. Yu discloses operating at a low frequency clock during at least most of the long period and at a high clock frequency at least when the receiver is energized (see column 5 line 29 to column 6 line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yu to Koleda, in order to further reduce the power consumption of the battery (as suggested by Yu at column 5 lines 45-51).

As to claim 51, the combination of Koleda and Yu further discloses the claimed limitation (see Yu, column 5 line 64 to column 6 line 18).

21. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and further in view of Pace (5,471,665).

As to claim 53, Koleda as modified by Nagamoto and Tanaka does disclose one bypass capacitor 32 (see figure 1), but fails to disclose plural bypass capacitors as claimed. Pace discloses a plural bypass capacitors (see column 4 lines 30-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pace to Koleda, in order to obtain a much faster warm up time (as suggested by Pace at column 4 lines 34-38).

Still as to claim 53, the combination of Koleda and Pace fails to disclose at least one capacitance not more than 100pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

22. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and further in view of Terreault (6,058,292).

As to claim 54, Koleda as modified by Nagamoto and Tanaka fails to disclose at least one SAW as claimed. Terreault discloses a SAW resonator circuit 60 for establishing an IF oscillator 24 for a receiver (see column 4 lines 5-14). Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Terreault to Koleda, in order to increase the start up time.

23. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and Terreault (6,058,292) and further in view of Panther (5,537,676).

As to claim 55, the combination of Koleda and Nagamoto and Tanaka and Terreault fails to disclose an LC filter for filtering an IF signal as claimed. Panther discloses an LC filter 41 for filtering an IF signal (see column 3 lines 39-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Panther to the combination of Koleda and Terreault, in order to reduce the implementing cost of the receiver 18 (as suggested by Panther at column 3 lines 40-45).

24. Claims 58, 60-61, 63, 68, 69, 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu (6,128,470).

As to claims 58, 69, 71, first of all the rejection to claim 1 over Koleda in view of Nagamoto as set forth above is herein incorporated. Koleda fails to disclose adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal as claimed. Naidu discloses adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal (see column 5 lines 28-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of

Naidu to Koleda, in order to properly determine a presence of a control signal (as suggested by Naidu at column 5 lines 28-34).

Still as to claim 58, the recitation "a window covering, awning, security screen, projection screen, lighting system or the like" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hira*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In fact, Koleda does disclose remote control system for controlling a window covering (see column 2 lines 56-61).

As to claims 60-61, Koleda as modified by Nagamoto fails to disclose that the plural pulses has a duty cycle in excess of 50% as in claim 60, and include at least six pulses as in claim 61. Those skilled in the art, however, would have recognized that the above claimed limitations would not render the claims patentable over Koleda because they would merely depend on the structure of the preamble alone. Other conventional preamble structures could also be in used Koleda without changing the scope and spirit of Koleda's invention. In addition, the examiner takes Official Notice that a preamble signal which has a duty cycle in excess of 50%, and include at least six pulses is known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the preamble pulse in Nagamoto as claimed, in order to allow the receiver enough time to detect the preamble pulses.

As to claim 63, Koleda further discloses at least one bypass capacitor 32 (see figure 1; column 4 lines 1-24). Koleda, however, fails to disclose that the capacitor 32 has a capacitance of below 500pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

As to claim 68, see the motor 20 in figure 1 in Koleda. See also column 2 lines 56-61.

25. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and further in view of Yu (US 6,735,454 B1).

As to claim 59, Koleda as modified by Naidu fails to disclose operating at an intermediate frequency between a low frequency clock and a high frequency clock as claimed. Yu discloses operating at an intermediate frequency between a low frequency clock and a high frequency clock (see column 5 line 29 to column 6 line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Yu to Koleda, in order to further reduce the power consumption of the battery (as suggested by Yu at column 5 lines 45-51).

26. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and further in view of Langlais (US 2003/0215032 A1).

As to claim 62, Koleda as modified by Nagamoto and Naidu fails to disclose a fast filter and a slow filter as claimed. Langlais discloses a fast filter 406 and a slow filter 408 (see figure 4) each electrically interposed between a receiver (232, 245. See figure 3)) and a controller (360, 368). See also paragraphs [0037]-[0038].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Langlais to Koleda, in order to properly detect presence of a signal (as suggested by Langlais at paragraphs [0037]-[0038]).

27. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and further in view of Pace (5,471,665).

As to claim 64, Koleda does disclose one bypass capacitor 32 (see figure 1), but fails to disclose plural bypass capacitors as claimed. Pace discloses a plural bypass capacitors (see column 4 lines 30-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Pace to Koleda, in order to obtain a much faster warm up time (as suggested by Pace at column 4 lines 34-38).

Still as to claim 64, the combination of Koleda and Pace fails to disclose at least one capacitance not more than 100pF as claimed. Those skilled in the art, however, would have recognized that the above claimed limitation would not render the claim patentable over Koleda because it would merely depend on how fast the settling time is (see Koleda, column 4 lines 8-15). Therefore, it would have been obvious to one of



ordinary skill in the art at the time of the invention to modify the capacitor 32 in Koleda as claimed, in order to minimize the settling time of the receiver.

28. Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and further in view of Terreault (6,058,292).

As to claim 65, Koleda as modified by Nagamoto and Naidu fails to disclose at least one SAW as claimed. Terreault discloses a SAW resonator circuit 60 for establishing an IF oscillator 24 for a receiver (see column 4 lines 5-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Terreault to Koleda, in order to increase the start up time.

29. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and Terreault (6,058,292) and further in view of Panther (5,537,676).

As to claim 66, the combination of Koleda and Nagamoto and Naidu and Terreault fails to disclose an LC filter for filtering an IF signal as claimed. Panther discloses an LC filter 41 for filtering an IF signal (see column 3 lines 39-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Panther to the combination of Koleda and Naidu and Terreault, in order to reduce the implementing cost of the receiver 18 (as suggested by Panther at column 3 lines 40-45).

30. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Naidu and further in view of Tanaka (5,636,243).

As to claim 67, Koleda as modified by Nagamoto and Naidu fails to disclose a DC-DC down converter as claimed. Tanaka discloses a DC-DC converter 318 electrically interposed between a battery 317 and receiver (see the receiver in figure 6) to provide voltage to the receiver (see column 4 lines 32-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Tanaka to Koleda, so that the receiver could be supplied with a desired voltage level (as suggested by Tanaka at column 4 lines 32-37).

31. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Yu and further in view of Naidu (6,128,470).

As to claim 70, first of all the rejection to claim 1 over Koleda as set forth above is herein incorporated. Koleda fails to disclose adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal as claimed. Naidu discloses adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal (see column 5 lines 28-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Naidu to Koleda, in order to properly determine a presence of a control signal (as suggested by Naidu at column 5 lines 28-34).

32. Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Terreault and further in view of Naidu (6,128,470).

As to claim 72, first of all the rejection to claim 1 over Koleda in view of Nagamoto as set forth above is herein incorporated. Koleda fails to disclose adaptively

adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal as claimed. Naidu discloses adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal (see column 5 lines 28-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Naidu to Koleda, in order to properly determine a presence of a control signal (as suggested by Naidu at column 5 lines 28-34).

33. Claim 73 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Tanaka and further in view of Naidu (6,128,470).

As to claim 73, first of all the rejection to claim 1 over Koleda as set forth above is herein incorporated. Koleda fails to disclose adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal as claimed. Naidu discloses adaptively adjusting a noise threshold above which a carrier must be detected to indicate the presence of a control signal (see column 5 lines 28-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Naidu to Koleda, in order to properly determine a presence of a control signal (as suggested by Naidu at column 5 lines 28-34).

34. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koleda in view of Nagamoto and Hunzinger (6,829,493).

As to claim 74, first of all the rejection to claim 1 over Koleda in view of Nagamoto as set forth above is herein incorporated. Koleda fails to disclose energizing

for a first energized period, then deenergizing for a short period if no preamble signal is detected, then energizing for a second energized period, and then deenergizing, at least if no preamble signal is detected, for period longer than the short period, prior to reenergizing the receiver. Such teaching is taught by Hunzinger (see column 1 lines 61-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Hunzinger to Koleda, in order to further reduce the battery consumption (as suggested by Hunzinger).

***Response to Arguments***

35. Applicant's arguments with respect to claims 1-74, 79 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's attention is directed to the newly-applied prior art, Nagamoto, for the teaching of the newly-added limitations as set forth above.

In addition, it is noted that claim 1 includes alternative language "the controller causing the receiver to be energized according to an energization paradigm **selected from the group consisting of**". Accordingly, only one of the limitations after the alternative language "**selected from the group consisting of**" needs to be addressed. As clearly stated in the rejection to claim 1, the combination of Koleda and Nagamoto discloses the claimed limitation "energizing the receiver once sometime within a period of a preamble pulse, wherein the preamble pulse is not a data command signal, when the controller causes the receiver to be energized, an activation duration of the receiver is substantially shorter than the period of a preamble pulse".

***Conclusion***

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGUYEN VO whose telephone number is (571)272-7901. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nguyen Vo/  
Primary Examiner, Art Unit 2618  
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